



National Highway Traffic Safety Administration

[Docket No. NHTSA-2021-0058]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Event Data Recorders

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice and request for comments on an existing collection in use without an OMB Control Number.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (PRA), this notice announces that the Information Collection Request (ICR) abstracted below will be submitted to the Office of Management and Budget (OMB) for review and approval. The ICR describes the nature of the information collection and its expected burden. This ICR is for approval of an existing collection in use without an OMB Control Number on event data recorders (EDRs). A Federal Register Notice with a 60-day comment period soliciting comments on the following information collection was published on August 26, 2021. Four comments were received in response to the notice.

DATES: Comments must be submitted on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Written comments and recommendations for the proposed information collection, including suggestions for reducing burden, should be submitted to the Office of Management and Budget at www.reginfo.gov/public/do/PRAMain. To find this particular information collection, select “Currently under Review – Open for Public Comment” or use the search function.

FOR FURTHER INFORMATION CONTACT: For additional information or access to background documents, contact Carla Rush, U.S. Department of Transportation, NHTSA, 202-

366-4583, 1200 New Jersey Avenue SE, West Building, Room W43–417, NRM–100, Washington, DC 20590.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501 et seq.), a Federal agency must receive approval from the Office of Management and Budget (OMB) before it can collect certain information from the public, it and a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. In compliance with these requirements, this notice announces that the following information collection request will be submitted to OMB.

Title: Event Data Recorders

OMB Control Number: New

Type of Request: Approval of an existing collection in use without an OMB Control Number.

Type of Review Requested: Regular

Length of Approval Requested: Three years

Summary of the Collection of Information: 49 CFR part 563, Event data recorders, specifies uniform, national requirements for vehicles voluntarily equipped with EDRs concerning the collection, storage, and retrievability of onboard motor vehicle crash event data. More specifically it requires voluntarily installed EDRs in vehicles with a gross vehicle weight rating (GVWR) of 3,855 kilograms (8,500 pounds) or less to:

- Record 15 essential data elements;
- Record up to 30 additional data elements if the vehicle is equipped to record these elements;
- Record these data elements in a standardized format, with specifications for range, accuracy, resolution, sampling rate, recording duration, and filter class;
- Function after full-scale vehicle crash tests specified in FMVSS Nos. 208 and 214; and
- Have the capacity to record two events in a multi-event crash.

In addition, part 563 requires vehicle manufacturers to make a retrieval tool for the EDR information commercially available, and include a standardized statement in the owner's manual indicating that the vehicle is equipped with an EDR and describing its purpose. Part 563 helps ensure that EDRs record, in a readily usable manner, data valuable for effective crash investigations and for analysis of safety equipment performance (e.g., advanced restraint systems).

Description of the Need for the Information and Proposed Use of the Information: Under 49 U.S.C. 322(a), the Secretary of Transportation (the "Secretary") is authorized to prescribe regulations to carry out the duties and powers of the Secretary. One of the duties of the Secretary is to administer the National Traffic and Motor Vehicle Safety Act, as amended. The Secretary has delegated the responsibility for carrying out the National Traffic and Motor Vehicle Safety Act to NHTSA.¹ Two statutory provisions, 49 U.S.C. 30182 and 23 U.S.C. 403, authorize NHTSA to collect motor vehicle crash data to support its safety mission. NHTSA collects motor vehicle crash information under these authorities to support its statutory mandate to establish motor vehicle safety standards and reduce the occurrence and cost of traffic crashes.² NHTSA also utilizes crash data in the enforcement of motor vehicle safety recalls and other motor vehicle highway safety programs that reduce fatalities, injuries, and property damage caused by motor vehicle crashes. In 2006, NHTSA exercised its general authority to issue such rules and regulations as deemed necessary to carry out Chapter 301 of Title 49, United States Code to promulgate 49 CFR part 563.³

NHTSA issued part 563 to improve crash data collection by standardizing data recorded on EDRs to help provide a better understanding of the circumstances in which crashes and injuries occur, which will in turn lead to the development of safer vehicle designs. EDR data are used to improve the quality of crash data collection to assist safety researchers, vehicle

¹ 49 U.S.C. 105 and 322; delegation of authority at 49 CFR 1.95.

² See 49 U.S.C. 30101 and 30111.

³ 71 FR 50997, August 28, 2006.

manufacturers, and the agency in crash investigations to understand vehicle crashes better and more precisely. Similarly, vehicle manufacturers are able to utilize EDRs in improving vehicle designs and developing more effective vehicle safety countermeasures, and EDR data may be used by Advanced Automatic Crash Notification (AACN) systems to aid emergency response teams in assessing the severity of a crash and estimating the probability of serious injury.

Additionally, the agency's experience in handling unintended acceleration and pedal entrapment allegations has demonstrated that, if a vehicle is equipped with an EDR, the data from that EDR can improve the ability of both the agency and the vehicle's manufacturer to identify and address safety concerns associated with possible defects in the design or performance of the vehicle.

60-Day Notice: A Federal Register notice with a 60-day comment period soliciting public comments on the following information collection was published on August 26, 2021 (86 FR 47719). Four comments were submitted in response to the notice. The commenters were the Insurance Institute for Highway Safety and Highway Loss Data Institute, the National Association of Mutual Insurance Companies, Advocates for Highway and Auto Safety, and the Center for Auto Safety. All commenters supported the information collection; however, the comments did not address the estimated cost and hour burden of this information collection. The comments instead made recommendations unrelated to this information collection for NHTSA to mandate event data recorders and expand the number of data elements required in part 563 and to make the data available to the public for certain vehicles. These comments, however, cannot be addressed by this process of seeking approval for the information collection for the current part 563. NHTSA also notes that the Driver Privacy Act of 2015 assigns ownership of EDR data to the vehicle owner, provides limitations on data retrieval from EDR data, and generally prohibits access to EDR data with specific exceptions to this general rule.

Affected Public: The respondents are manufacturers that voluntarily equip passenger cars, multipurpose passenger vehicles, trucks, and buses having a GVWR of 3,855 kg (8,500 pounds) or less and an unloaded vehicle weight of 2,495 kg (5,500 pounds) with EDRs.

Estimated Number of Respondents: The agency estimates that there are approximately 18 manufacturers of vehicles subject to part 563.

Estimated Total Annual Burden Hours: NHTSA estimates that there are no annual reporting or recordkeeping burdens associated with part 563, except for the owner's manual statement requirement which will be incorporated into the consolidated owner's manual requirements information collection (OMB Control Number 2127-0541). Vehicle manufacturers are not required to retain or report information gathered by EDRs because the devices themselves continuously monitor vehicle systems and determine when to record, retain, and/or overwrite information. The information is collected automatically by electronic means. Data are only required to be locked and cannot be overwritten when a recordable event occurs (e.g., an air bag deploys in a crash event). When recordable events do occur, EDRs only capture data for a few seconds. NHTSA estimates that there is no annual hourly burden associated with the information standardization requirements of part 563.

Estimated Total Annual Burden Cost: In the August 2006 final rule, the agency estimated that the costs associated with the final rule were negligible. Several factors contributed to this determination. First, NHTSA estimated that about 64 percent of new light vehicles in 2005 already added the EDR capability to the vehicles' existing air bag control systems. Thus, the EDRs were simply capturing information that was already being processed by the vehicle. Additionally, in the final rule the agency sought to limit the number of EDR data elements and associated requirements to the minimum necessary to achieve our stated purposes. At that time, NHTSA determined that the industry's current state-of-the-art EDRs largely met the purposes of part 563. Thus, it was unnecessary to specify requirements for additional sensors or

other hardware that would increase EDR costs appreciably. NHTSA stated in the final rule that the most significant technology cost could result from the need to upgrade data storage.

The cost of data storage, long-term or short-term, has drastically reduced over the years.⁴ Regardless of the storage type, costs are now a fraction of what they were even 10 years ago.⁵ A recent study from NHTSA looking at EDR technologies reported that information provided by industry indicated that a typical recorded event requires about 2 kilobytes (Kb) of memory depending on the manufacturer.⁶ Information from manufacturers also indicated that the typical microprocessor used in vehicle applications, in approximately the 2013 timeframe, had 32 Kb or 64 Kb of flash data as part of the air bag control module (ACM) and that only a fraction of the memory is dedicated to the EDR data. This study also estimated the total memory usage for all Table I and Table II data elements, listed at 49 CFR 563.7, recorded for the minimum required duration and frequency requirements in part 563. It reported that to record Table I and II data elements would require 0.072 Kb and 0.858 Kb of memory storage, respectively.

In addition, NHTSA now estimates that 99.5 percent of model year 2021 light vehicles have a compliant EDR, meaning manufacturers have largely already incurred the cost of meeting the part 563 requirements. Given that EDRs are installed on nearly all new light vehicles, the large amount of storage that is part of the air bag control module (32 kb or 64 kb), the small fraction required for EDR data (<1 kb), and the negligible costs for data storage, NHTSA continues to believe that there would be no additional costs or negligible costs associated with the part 563 requirements. Therefore, the cost burden for this collection of information is discussed qualitatively.

Part 563 only applies to vehicles voluntarily-equipped with EDRs. Therefore, any burden is based on the differences in cost between a compliant and non-compliant EDR. In considering additional burden for compliant EDRs, NHTSA considered: (1) the additional burden of meeting

⁴ <https://www.computerworld.com/article/3182207/cw50-data-storage-goes-from-1m-to-2-cents-per-gigabyte.html>

⁵ <https://hblock.net/blog/posts/2017/12/17/historical-cost-of-computer-memory-and-storage-4/>

⁶ DOT HS 812 929, <https://www.nhtsa.gov/document/light-vehicle-event-data-recorder-technologies>

the 10-day data crash survivability requirement; and (2) the additional burden of meeting the data format requirements. Part 563 requires that an EDR must function during and after the compliance tests specified in FMVSS Nos. 208 and 214. The EDR's stored data is required to be downloadable 10 days after the crash tests. This requirement provides a basic functioning and survivability level for EDRs, but does not ensure that EDRs survive extremely severe crashes, fire, or fluid immersion. The burden for data survivability can include costs for an additional power supply and enhancements for computer area network (CAN) such as wiring, data bus, and harness. However, before part 563 was established the agency had not documented an EDR survivability problem except in rare and extremely severe events such as fire and submergence. Thus, the agency does not believe vehicle manufacturers incur additional costs to comply with the ability to retrieve the essential data elements 10 days after the crash test.

With regard to the memory capacity required to meet the part 563 data requirements, due to proprietary concerns, the adequacy of existing memory capacity of part 563 non-compliant vehicles is not known. However, we believe that the part 563 requirements are comparable to the current industry EDR practices. In terms of the burden associated with software algorithm changes to meet the data format requirements, the agency believes that, in the event a vehicle manufacturer needs to redesign their software algorithm, the redesign would be minor (e.g., changing the specifications in their codes). The agency estimates that the cost of algorithm redesign would be negligible on a per vehicle basis and it would be an upfront cost (i.e., not a recurring burden).

Public Comments Invited: You are asked to comment on any aspects of this information collection, including (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; and (d) ways to

minimize the burden of the collection of information on respondents, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

(Authority: The Paperwork Reduction Act of 1995; 44 U.S.C. chapter 35, as amended; 49 CFR 1.49; and DOT Order 1351.29.)

Raymond R. Posten,

Associate Administrator for Rulemaking.

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